

for the first time since Cartan's meager fascicle of half a century ago)? Yet, although these systems purport ultimately to solve differential equations, and although ultimately they do so, one nevertheless feels that the awkward intrusion of notions of manifold and vector bundle (which one instinctively feels to be provisional) in the face of superior algebra is like the appearance of a close but ill-dressed relative at a wedding party. It is the algebra itself that some day will dictate the semantics, as has already happened in algebraic geometry, in logic, etc., and we dare predict that the proper spatial notions that go with the syntax theory of exterior differential systems will be gotten as their naturally drawn and unprejudiced semantics, whatever it will turn out to be.

W. N. EVERITT, *Inequalities*, Dekker, 1991, 243 pp.

Faced with the impossible task of competing with Hardy, Littlewood, and Pólya's classic, the editor has found a brilliant way out: for every chapter of the unparalleled classic, he has written (or commissioned from the expert) a parallel chapter on the same subject, designed to bring the subject up to date. Well, more or less. At any rate, the upshot is that we will now have to add this book to our shelf, next to our beloved little red book.

M. ARTIN, *Algebra*, Prentice-Hall, 1991, 618 pp.

This textbook is the first that can rightfully claim to be the successor to the old Birkhoff-MacLane. It has learned from the experience of the intervening years how college algebra is to be taught, and it is the only textbook that we would recommend for self-study. Particularly admirable is the avoidance of the "botanical" approach that one finds in the earlier texts, where algebraic structures are described in series like species of Lepidoptera, and most of all the training in honesty of reasoning that the author has taken pains to communicate with every line. Unquestionably, a permanent classic.

C. C. CHANG AND H. J. KEISLER, *Model Theory* (3rd ed.), North-Holland, 1990, 650 pp.

Every field of mathematics has its zenith and its nadir. The zenith of logic is model theory (we do not dare say what we believe to be its nadir). The sure sign that we are dealing with a zenith is that, as we, non-logicians that we are, attempt to read it, we get the feeling that the material should be rewritten to benefit a general mathematical audience. To be sure, the presentation in this thorough and enjoyable text is as clear as it might be; yet, we would not mind seeing a "Reader's Digest condensed version" for the unhappy many who might otherwise remain ignorant of yet another paradise of mathematics.

M. POUZET AND D. RICHARD, *Orders: Description and Roles*, North-Holland, 1984, 548 pp.

The concept of an ordered set is fundamental to combinatorics, as is now apparent. What is not apparent, or rather, what seems like a miracle, is how theorems on ordered sets that are discovered without the slightest combinatorial motivation later turn out to be the key to various combinatorial problems. But then, why should we be surprised of such coincidences? Aren't they what mathematics is really about?

In this book, we find the right mix of the combinatorial and the not-yet-combinatorial; despite being a collection of articles, it will remain on our shelves for many years as an important reference.